**Homework 5 WriteUp**

*Polyfit.py*

The estimated equations are:

A close up of a map

Description automatically generated

According to the graph above, the best polynomial degree for the provided data is 5 since it has the lowest error between the data and the estimated polynomial function.

The predicted value for the polynomial with a degree of 5 is -166.82

*Regularize-cv.py*

A screenshot of a cell phone

Description automatically generated

The best lambda value is 13.49 which has a MSE of 1811976.57 as shown at the minimum of the graph above

Equation

The predicted value for a diamond with 0.25 carat, 3 cut, 3 color, 5 clarity, 60 depth, 55 table, 4x, 3y, 2z is $437.28